

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Nagravision USA's)	
Request for Waiver of Sections 76.1204(a)(1))	CSR-_____
and 76.640(b)(4)(ii))	
of the Commission's Rules)	
)	
Implementation of Section 304 of the)	CS Docket No. 97-80
Telecommunications Act of 1996)	

**REQUEST FOR WAIVER OF
47 C.F.R. 76.1204(a)(1) AND 47 C.F.R. 76.640(b)(4)(ii)**

Tom Wirth
Senior Vice President
Nagravision Consumer Electronics
NAGRAVISION USA, INC.
938 Peachtree Street NE, Suite 200
Atlanta, GA 30309-3919

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REQUEST FOR WAIVER

The Commission's rules prohibit multichannel video programming distributors ("MVPDs") from placing into service new navigation devices which "perform both conditional access and other functions in a single integrated device."¹ The Commission's rules also require a functional IEEE-1394 interface on all high-definition set-top boxes acquired by operators for distribution to customers.²

Nagravision USA ("Nagravision") requests a three year general waiver of the Integration Ban and the IEEE-1394 Requirement for its low-cost, limited-capability, high-definition receiver model HD200, under 47 C.F.R. § 549(c) and 47 C.F.R. §§ 1.3, 76.7 and 76.1207. Approval of such a waiver would be in the public interest.

Nagravision is one of the largest independent suppliers in the world of conditional access systems and other content management tools for digital television providers.³ Nagravision is a major supplier of conditional access systems to MVPDs both in the United States and globally.

¹ 47 C.F.R. § 76.1204(a)(1) ("Integration Ban") ("Commencing on July 1, 2007, no multichannel video programming distributor subject to this section shall place in service new navigation devices for sale, lease or use that perform both conditional access and other functions in a single integrated device.").

² 47 C.F.R. § 76.640(b)(4)(ii) ("IEEE-1394 Requirement") ("Effective July 1, 2005, include both a DVI or HDMI interface and an IEEE 1394 interface on all high definition set-top boxes acquired by a cable operator for distribution to customers").

³ Nagravision is a division of the Kudelski Group, a publicly traded company based in Switzerland.

The Commission has previously granted similar waivers for low-cost, limited-capability standard-definition receivers.⁴ This Request is for a device which has similar capabilities, but with high-definition decoding and output. The Commission has granted limited waivers for high-definition, low-cost, limited-capability devices in the past.⁵ The Commission has stated that it “believe[s] that, with the passage of time, it is appropriate to add HD functionality to the list of one-way capabilities that can qualify for a waiver of the general rule.”⁶

I. THE NAGRAVISION SET-TOP BOXES ARE LOW-COST, LIMITED-CAPABILITY NAVIGATION DEVICES

A. “Limited Capability” No Longer Excludes High-Definition Capability

The digital transition which began in the late 1990s has created a marketplace for high-definition video content, and has spurred the transition of television programming from analog standard definition to digital high-definition content. Even as late as 2006, there was limited availability of high-definition programming—mostly limited to premium movie channels and selected programming on the major over-the-air networks.

Today nearly every cable network is offered (or will be shortly) in high-definition.⁷ The nation’s transition from analog standard definition television to digital high-definition television has been compared to the transition from black and white television to color television.⁸

High-definition capability is no more an “advanced” feature than color was in the mid-1970s, when networks had aired the last new black and white episodes, and no more advanced than the late 1970s when nearly all new televisions were color.

Moreover, in granting a waiver to Cable One, the Commission recently found that high-definition reception should no longer disqualify one-way devices from waiver of the general

⁴ See *In the Matter of Evolution Broadband, LLC’s Request for Waiver of Section 76.1204(a)(1) of the Commission’s Rules*, Memorandum Opinion and Order, FCC 09-46, ¶ 15 (rel. June 1, 2009) (“*Evolution Broadband Waiver Order*”).

⁵ *In the Matter of Implementation of Section 304 of the Telecommunications Act of 1996, Commercial Availability of Navigation Devices, Cable One, Inc.’s Request for Waiver of Section 76.1204(a)(1) of the Commission’s Rules*, Memorandum Opinion and Order, FCC 09-45, CS Docket No. 97-80, CSR-8080-Z (“*Cable One Order*”).

⁶ *Id.*, at 12.

⁷ See *In the Matter of Cable One, Inc. Request for Waiver of 47 C.F.R. § 76.1204(a)(1)*, CSR-8080-Z (Oct. 2008) (“*Cable One Waiver Request*”) at 4 (describing the expansion of high-definition programming availability).

⁸ See Shields and Riddell, *Almost 3 Million Unready as U.S. Moves to Digital TV*, Bloomberg (June 11, 2009), available at <http://www.bloomberg.com/apps/news?pid=20601088&sid=a0o2M9JjazwQ> (describing the conversion as “more significant than switching from black-and-white to color”).

rule,⁹ that high-definition is no longer an advanced service and is “becoming commonplace,”¹⁰ and found no reason to provide a “regulatory incentive to deprive consumers of the HD-quality programming” they paid for.¹¹

We note that Evolution Broadband has petitioned the Commission for a similar waiver.¹²

B. The HD200 is a One-Way, Not Upgradable, no-PVR, no-PPV, no-SDV, Low-Cost Device

The HD200 is a one-way device which does not have any capability for upstream, two-way communication,¹³ and does not have any capability for nor field-upgradability to add two-way communications capability. Furthermore, the HD200 is a receive-only device which does not have any local PVR storage capability,¹⁴ and does not have any capability for nor field-upgradability to add such storage.

As a direct result, the subject boxes are incapable of switched-digital-video tuning (“SDV”) and are incapable of being upgraded to PVR-capable or using a networked-PVR.¹⁵

C. Grant of a Waiver Would Not Endanger Development of the Competitive Marketplace

In the *Cable One Order*, the Commission concluded that there would be limited impact on the market for navigation devices because two-way devices remain subject to the integration ban and consumers favor two-way advanced features for the televisions used for primary viewing.¹⁶

Nagravision intends to sell a variety of set-top boxes to operators, including two-way devices, PVRs and other devices which have advanced features and are subject to the integration ban. As a result, Nagravision has developed CableCARD devices which are intended to be used in both retail devices and devices leased by the MSO.

⁹ *Cable One Order* at 12.

¹⁰ *Id.*

¹¹ *Id.*

¹² See *In the Matter of Evolution Broadband, LLC Petition for Waiver of 47 C.F.R. § 76.1204(a)(1)*, CSR-_____, CS Docket No. 97-80 (July 31, 2009) (“*Evolution Waiver Request*”).

¹³ See Attachment A.

¹⁴ *Id.*

¹⁵ Use of a network PVR function requires upstream (two-way) communication capability.

¹⁶ *Cable One Order* at 13, 14 (“deployment of these devices will not endanger the development of a competitive marketplace”, and “allowing Cable One to deploy a low cost, limited-capability, one-way HD device will generate consumer benefits that will outweigh any limited effect it may have on the retail market for navigation devices”).

Nearly alone among conditional access vendors in the cable marketplace in the United States, NagraVision has long cultivated partnerships and cooperative arrangements with consumer electronics manufacturers. Many television manufacturers also manufacture devices which integrate with NagraVision systems already (outside of the United States). NagraVision is a pro-competitive force in the industry, by partnerships and collaborations with device manufacturers in an effort to drive receiver costs *down*.

D. Description of the HD200

The HD200 is a low-cost, limited capability device which but for HD decoding capability and IEEE-1394 output requirement satisfy the waiver criteria set forth by the Commission.¹⁷ The HD200 can only access one-way programming. It cannot access two-way nor video-on-demand services. They do not include video recording capabilities (“PVR”), broadband Internet access, or multiple tuner hardware or features.¹⁸

In addition, the HD200 typically costs significantly less than the least expensive CableCARD-enabled set-top box with HD capability.

NagraVision is a conditional access system provider and systems integrator, and designs and engineers, but is not generally the direct manufacturer of the devices. In pursuit of the lowest-possible cost, the devices are manufactured by partners, suppliers (including contract manufacturers) or customers (including the cable system operators). Nevertheless, the devices described in EXHIBIT A are the devices which are deployed in digital cable systems.

II. WAIVERS WOULD BE IN THE PUBLIC INTEREST

The Commission has also concluded that waivers for low-cost, limited-capability, standard definition devices similar to the HD200 “will not endanger the development of the competitive marketplace envisioned in Section 629”.¹⁹ The Commission subsequently granted a

¹⁷ See *In the Matter of Implementation of Section 304 of the Telecommunications Act of 1996: Commercial Availability of Navigation Devices*, 20 FCC Rcd. 6794 ¶ 37 (2005) (“2005 Deferral Order”) (establishing waiver criteria for low-cost, limited capability devices).

¹⁸ The NagraVision STBs are basic HD terminal devices developed and manufactured especially to enable small and mid-sized operators to transition to digital network technologies (including alternative network technologies and topologies) in a cost-effective manner. Higher capability devices, which include PVR and two-way features, are available to operators to serve advanced customer households.

¹⁹ 2005 Deferral Order ¶ 37.

limited waiver for low-cost, limited-capability HD devices.²⁰ In the *Cable One Order*, the Commission found that low-cost, one-way HD devices are unlikely to impede the development of a competitive market for navigation devices.²¹ Moreover, the Commission found no reason to provide a regulatory incentive to artificially limit delivery of HD programming that consumers expected to be able to receive when they purchased HD-capable televisions.²²

Indeed, competitive network technology vendors like Nagravision encourage the development of a competitive marketplace for both retail and operator-leased devices.²³

A. An Integration Ban Waiver Would Be In The Public Interest

Waiver of the Integration Ban would be in the public interest, as it would enable cost-effective all-digital deployments, particularly for smaller operators, yielding more widespread deployment of VoIP, HD video and other new and innovative services. At the same time, such a grand would not harm the competitive marketplace for navigation devices – but would increase the competition in the marketplace for distribution and security products and services.

Allowing operators to widely deploy the HD200 would relieve operators of the costs of supporting competitive devices for a market that has failed to develop. Freeing resources would allow operators to deploy cost-effective all-digital service yielding more and better VoIP, HD and other newer services.

Furthermore, a waiver of H.264/AVC (MPEG-4) capable devices like the HD200 would serve the public interest by increasing the bandwidth efficiency of transport of video over cable systems. MPEG-4 is becoming commonplace in especially high-definition devices because it is as much as 50% more efficient when transmitting high-definition video.²⁴ This increased

²⁰ *Cable One Order*

²¹ *Id.*, ¶13

²² *Id.*, ¶12

²³ The digital cable conditional access market is dominated by two companies. A third has a small portion of the market. Nagravision has a substantial portion of the world-wide market for conditional access and similar technologies for digital cable networks, but has had limited deployment in digital cable in the United States.

²⁴ Cisco Systems, *MPEG-4 Advanced Video Coding*, at http://www.cisco.com/en/US/netsol/ns902/networking_solutions_solution.html; Motorola, *MPEG-4 over IP Networks: A New Distribution Paradigm Emerges*, at http://www.motorola.com/staticfiles/Business/Solutions/Industry%20Solutions/Service%20Providers/Telcos/Docu%20ments/static%20files/WPr_MPEG4_B_New.pdf?localeId=33, p.2.

efficiency frees additional capacity on the cable system, which can be used to offer newer, better or less expensive products and services to consumers.

A waiver of devices such as the HD200 would additionally benefit the public interest by serving to help open the market for *competitive conditional access systems*, which will increase competition for conditional access systems and thereby drive down consumer costs (indirectly, through lower operational costs to the cable operators). Competitive conditional access vendors like NagraVision support open interfaces for conditional access functions within the cable head-end, which further commoditizes conditional access services and lowers operator costs.

B. A IEEE-1394 Requirement Waiver Would Be In The Public Interest

Waiver of the IEEE-1394 interface requirement would also be in the public interest. The competitive and competitive attachment goals of the IEEE-1394 requirement in Section 76.640(b)(4)(ii) have been overtaken by events, and IEEE-1394 is no longer a competitively viable interface.

The marketplace for IEEE-1394 home networking has not developed, and further requirement for such interfaces will not establish such a market.²⁵ Failure to grant waiver of Section 76.640(b)(4)(ii) would be detrimental to the public interest.²⁶

The IEEE-1394 requirement is costly and antithetical to low-cost, limited capability.²⁷ Few if any displays in the marketplace support IEEE-1394, yielding a requirement for inclusion of a vestigial output.

III. RELIEF REQUESTED

NagraVision requests a three year general waiver of the Integration Ban and the IEEE-1394 Requirement for its low-cost, limited-capability, high-definition receiver DMT-100HD, under 47 C.F.R. § 549(c) and 47 C.F.R. §§ 1.3, 76.7 and 76.1207.

²⁵ See *In the Matter of Intel Corporation Petition for Waiver of 47 C.F.R. § 76.640(b)(4)*, CSR-8229-Z, CS Docket No. 97-80 (filed Oct. 7, 2009) at p.5 (“*Intel Petition*”).

²⁶ See *id.*, p.2.

²⁷ See *id.*, p.5 (describing Intel’s experience with implementation costs as “more than \$5” for IEEE-1394, compared to “a few cents” for alternatives).

IV. CONCLUSION

For the foregoing reasons, NagraVision USA, Inc. respectfully urges the Commission to grant its petition for waiver of Sections 1204(a)(1) and 76.640(b)(4)(ii) of the Commission's rules.



Respectfully submitted,

A handwritten signature in black ink, appearing to read "Tom Wirth", is positioned above the typed name and title.

Tom Wirth
Senior Vice President
NagraVision Consumer Electronics
NAGRAVISION USA, INC.
938 Peachtree Street NE, Suite 200
Atlanta, GA 30309-3919

March 25, 2010

EXHIBIT A

Overview:	
DVB-C, MPEG-2/MPEG-4, SD/HD, Digital-to-Analog converter unit. Software: LivewireOS v3.0	
Standard Features:	
Remote control unit, white gift box, user manual, AV adapter cable for baseband RCA output	
Front Panel Rendering (chassis design is subject to change)	
	
Front panel keys: 3 Keys (Power/Standby, CH +/-), LED, IR Receiver	STB Dimensions: 141mm x 109mm x 38.65mm
Rear Panel Rendering (subject to change)	
	
Rear and Side Panel Inputs: RF In, Smart Card slot, IR Extender port on side Power Supply: External (90~240V AC @ 50/60Hz)	Rear Panel Outputs: RF Out with CH 3/4 switch (software switch optional), HDMI v1.3 with HDCP v1.1, A/V Out RCA adapter (RCA composite outputs optional)
Microprocessor	
BCM7572 (or equivalent)	
Memory	
16 MB Flash x 128 MB RAM	
Demodulator	
QAM 64/256, ITU-T J.83, Annex-A/B/C, 6-8 MHz	
Security Interfaces	
1 Smart Card Reader: ISO 7816-3 Compliant (SIM card optional)	
Video Processing	
Decompression: MPEG-2, MPEG-4	
Video Output: NTSC, PAL, PAL-M, PAL-N; Aspect Ratios: 4:3, 16:9 (letterbox)	
Resolution: 480, 720p, 1080i	
Audio Processing	
MPEG-1 Layers 1,2,3 (MP3), MPEG-2 AAC, MPEG-4 HE-AAC, Dolby optional	